

Claims

1. A method for culturing plant material comprising:

- 5 (a) forming a layer of floatable granular substrate in a culturing vessel,
(b) placing plant material on or in said layer, and
(c) culturing the plant material in the presence of a culture medium, wherein there is no additional
10 structure supporting the plant material from underneath,

wherein said floatable granular substrate comprises particles having an average diameter of 1-25 mm.

15

2. A method according to claim 1 wherein the culture medium is added before the layer of the granular substrate is formed.

20

3. A method according to claim 1, wherein the culture medium is added after the layer of the granular substrate is formed.

25

4. A method according to any preceding claim, wherein said particles have a polygonal or spheroidal shape.

5. A method according to claim 4, wherein said particles have an irregular polygonal or spheroidal shape.

30

6. A method according to claim 4, wherein said particles have a regular polygonal or spheroidal shape.

35

7. A method according to any preceding Claim, wherein said granular substrate comprises particles having a smooth surface.

8. A method according to any preceding claim, wherein said granular substrate is chemically inert.

5 9. A method according to any preceding claim, wherein said granular substrate has a density of 50-99.8 % of the density of the culture medium.

10. A method according to any preceding claim, wherein said granular substrate is a thermoplastic polymer.

10 11. A method according to claim 10, wherein said thermoplastic polymer comprises HD-PE, LD-PE or PP.

15 12. A method according to any preceding claim, wherein said granular substrate has a density of 0.5-1.1 g/cm³.

13. A method according to claim 12, wherein said granular substrate has a density of 0.90-0.96 g/cm³.

20 14. A method according to any preceding claim, wherein said granular substrate comprises particles composed of more than one component, wherein said components can individually be more or less dense than the average density of the particle.

25 15. A method according to claim 14, wherein said particles comprise at least one hollow enclosure.

30 16. A method according to any preceding claim, further comprising an initial step of sterilizing the granular substrate by a chemical treatment, irradiation and/or heat.

35 17. A method according to claim 16, wherein said granular substrate is autoclaved.

18. A method according to any preceding claim, wherein said granular substrate forms a substrate layer and wherein said substrate layer is 0.5-20 cm thick.

5 19. A method according to claim 18, wherein said substrate layer floats on the culture medium.

20. A method according to claim 19, further comprising the step of aerating the culture medium.

10

21. A method according to any of claims 18-20, wherein said substrate layer comprises additional embedded support structures, wherein said additional support structures are supported by the granular substrate layer.

15

22. A culturing kit for culturing plant material comprising a floatable granular culture substrate and a culturing vessel, wherein said floatable granular substrate comprises particles having an average diameter of 1-25 mm.

20

23. A culturing kit according to claim 22, further comprising culturing solution and/or plant material.

25 24. A method of culturing plant material comprising the use of a culturing kit according to claim 22 or claim 23.

25. Use of a floatable granular substrate for culturing plant material, wherein said floatable granular substrate comprises particles having an average diameter of 1-25 mm.

30

26. The use according to claim 25, wherein said particles have a polygonal or spheroidal shape.

35

27. The use according to claim 25 or 26, wherein said floatable granular substrate comprises particles having a smooth surface.
- 5 28. The use according to any of claims 25-27, wherein said granular substrate is chemically inert.
29. The use according to any of claims 25-28, wherein said granular substrate has a density of 50-99.8 % of the
10 density of the culture medium used.
30. The use according to any of claims 25-29, wherein said granular substrate is a thermoplastic polymer.
- 15 31. The use according to claim 30, wherein said thermoplastic polymer comprises HD-PE, LD-PE, or PP.
32. The use according to any of claims 25-31, wherein said granular substrate has a density of 0.5-1.1 g/cm³.
20
33. The use according to claim 32, wherein said granular substrate has a density of 0.90-0.96 g/cm³.
34. The use according to any of claims 25-33, wherein said
25 granular substrate comprises particles composed of more than one component, wherein said components can individually be more or less dense than the average density of the particle.
- 30 35. The use according to claim 34, wherein said particles comprise at least one hollow enclosure.